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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,016	07/07/2003	Wolfgang Ochem	2000P22369WOUS	6915

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EXAMINER	
SCHEIBEL, ROBERT C	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,016	OCHEM ET AL.	
	Examiner	Art Unit	
	Robert C. Scheibel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20040112*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Examiner notes that the IDS submitted 1/12/2004 includes only one page. However, the top of the IDS sheet indicates that this is page 1 of 2. The second page was not received. However, 2 pieces of Non-Patent Literature were received and have been included in the 892 attached herein. Examiner assumes these pieces of art were listed on this missing page. The consideration of these references is therefore indicated by their listing on the 892.

Drawings

2. The drawings are objected to because the drawing should be labeled "Figure 1". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because:

- The phrase "The preset invention" in line 1 should be changed to "The present invention".

Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: the section labeled "Brief Description of the Several Views of the Drawings" should be modified to more directly describe the drawings. Specifically, at a minimum, this section should refer to the drawing by figure number ("Figure 1").

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims **1, 4-6, 10, and 12** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,972,465 to Cline et al.

Regarding claim **1**, Cline discloses a method for establishing communication links to and from access lines (the lines connected to units 23-26 and 107-108 of Figure 5) belonging to line termination units (LUs 18, 20, 21, 22 of Figure 5) of subscriber access units (switching modules 200-202 of Figure 5) of an exchange in a switching system, comprising the steps of: connecting said subscriber access units to one another by means of a connection arrangement (the connection arrangement is that shown in Figure 5; see trunks 105 and 106 connecting the subscriber access units), connecting said subscriber access units to a central controller (Central Control 30) which, based on dialing information fed to it from the line termination units (see lines 26-35 of column 7), permits establishment of communication links via a central switching unit (switch 10 of Figure 5), establishing links between said access lines of said line termination units (see paths 207-209 and trunks 105-106 which connect the access lines corresponding to telephone units 26 and 108 of Figure 5, for example), said line termination units belonging to said subscriber access units which as a result of said connection arrangement are not adjacent to one another (switching modules 200 and 202 are not adjacent as shown in Figure 5), said links being effected via trunk lines running directly between subscriber access units via at least one other subscriber access unit (see paths 207-209 and trunks 105-106 of Figure 5) and controlled by a central controller without involvement of said central switching unit (see lines 10-15 and Figure 5; the central switching unit 10 is bypassed).

Regarding claim **4**, Cline discloses the limitation that connections between access lines of line termination units belonging to one subscriber access unit, or to line termination units of subscriber access units which on the basis of connection by means of said connection arrangement are adjacent, can be established directly in said subscriber access unit concerned or

between said subscriber access units which by means of said connection arrangement are connected to one another and are adjacent to one another, without involvement of said central switching unit (see Figure 4 and lines 10-15 of column 11; the access lines corresponding to telephone units 26 and 24 (in adjacent subscriber access units) are connected via paths 205 and 206 and trunk 100).

Regarding claim **5**, Cline discloses the limitation of transmitting both communication signals and control signals via said trunk lines between subscriber access units of said exchange (see the passage from line 66 of column 11 through line 22 of column 12.)

Regarding claim **6**, Cline discloses the limitation of determining in said central controller trunk lines to be used by a subscriber access unit for transmitting control signals to other subscriber access units of a same exchange, if said subscriber access unit is connected to a number of other subscriber access units via a number of trunk lines corresponding to a number of said other subscriber access units (see lines 10-15 of column 11).

Regarding claim **10**, Cline discloses the limitation of determining in said central controller trunk lines to be used by a subscriber access unit for transmitting control signals to other subscriber access units of a same exchange, if said subscriber access unit is connected to a number of other subscriber access units via a number of trunk lines corresponding to a number of said other subscriber access units (see lines 10-15 of column 11).

Regarding claim **12**, Cline discloses the limitation of determining in said central controller trunk lines to be used by a subscriber access unit for transmitting control signals to other subscriber access units of a same exchange, if said subscriber access unit is connected to a

number of other subscriber access units via a number of trunk lines corresponding to a number of said other subscriber access units (see lines 10-15 of column 11).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims **2, 3, 8, and 14-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,972,465 to Cline et al in view of "A Survey of the Remote Switching Capabilities of the 5ESS Switch" to Billhardt et al.

Regarding claim **2**, Cline discloses all limitations of parent claim 1 as disclosed in the rejection under 35 U.S.C. 102(b) above. Cline also discloses the limitation of claim 2 that to each of which access lines subscriber terminal equipment can be connected in the telephones disclosed in figures 4 and 5.

However, Cline does not disclose the limitations of claim 2 that the step of determining is performed in an event of overflow traffic.

Billhardt discloses the limitation that switching system comprises a number of exchanges in Figure 6. Cline and Billhardt are analogous art because they are from the same field of endeavor of communications switching systems. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Cline to explicitly indicate that some of the switching modules belonged to other exchanges. The motivation for doing so would have been to further reduce subscriber isolation as suggested throughout Cline; see the abstract, for example. By allowing the subscriber to communicate with other exchanges when a catastrophe occurs in the central office, the subscriber is less isolated by the catastrophe, thus improving on Cline. Therefore, it would have been obvious to combine Billhardt with Cline for the benefit of further reducing subscriber isolation in event of a catastrophe to obtain the invention as specified in claim 2.

Regarding claim **3**, Cline discloses the limitation that the terminal equipment comprises at least one of a telephone, a facsimile machine, a personal computer, and a communication apparatus in the telephones of figures 4 and 5.

Regarding claim **8**, Cline discloses the limitation of determining in said central controller trunk lines to be used by a subscriber access unit for transmitting control signals to other subscriber access units of a same exchange, if said subscriber access unit is connected to a number of other subscriber access units via a number of trunk lines corresponding to a number of said other subscriber access units (see lines 10-15 of column 11).

Regarding claims **14-19**, Cline discloses the limitations of parent claims 1 and 4-6 in the rejection under 35 U.S.C. 102(b) above, and Cline in view of Billhardt discloses the limitations of parent claims 2-3 in the rejection under 35 U.S.C. 103(a) above. However, Cline does not disclose expressly the limitation that the subscriber access units are also used for connecting transmission lines to or from other exchanges. Billhardt discloses the limitation that the subscriber access units are also used for connecting transmission lines to or from other exchanges in Figure 6. Cline and Billhardt are analogous art because they are from the same field of endeavor of communications switching systems. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Cline to explicitly indicate that the switching modules connected to other exchanges. The motivation for doing so would have been to further reduce subscriber isolation as suggested throughout Cline; see the abstract, for example. By allowing the subscriber to communicate with other exchanges when a catastrophe occurs in the central office, the subscriber is less isolated by the catastrophe, thus improving on Cline. Therefore, it would have been obvious to combine Billhardt with Cline for the benefit of further reducing subscriber isolation in event of a catastrophe to obtain the invention as specified in claims 14-19.

10. Claims **7, 11, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,972,465 to Cline et al in view of "EWSD Remote Switching Unit – The Intelligent Solution for a Smart Remote".

Cline discloses all limitations of parent claims 6, 10, and 12 as disclosed in the rejection under 35 U.S.C. 102(b) above. However, Cline does not disclose the limitations of claims 7, 11 and 13 that the step of determining is performed in an event of overflow traffic.

However, "EWSD Remote Switching Unit" discloses the limitation that the step of determining is performed in an event of overflow traffic in the section labeled "External connection via backdoor trunks" on page 11. This section teaches the rerouting of connections if a trunk is busy (i.e. a traffic overflow). Cline and "EWSD Remote Switching Unit" are analogous art as they are both from the same field of endeavor of communications switching systems. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Cline to route the data via the alternate links (as in Figure 5) based on overflow traffic conditions as suggested by "EWSD Remote Switching Unit". The motivation for doing so would have been to reduce load on the network and cut costs as suggested by "EWSD Remote Switching Unit" in the first paragraph in column 2 of page 6. Therefore, it would have been obvious to combine "EWSD Remote Switching Unit" with Cline for the benefit of reducing load on the network and cutting costs to obtain the invention as specified in claims 7, 11, and 13.

11. Claim **9** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,972,465 to Cline et al in view of "A Survey of the Remote Switching Capabilities of the 5ESS Switch" to Billhardt et al and in further view of "EWSD Remote Switching Unit – The Intelligent Solution for a Smart Remote" (y 1986)

Cline and Billhardt disclose all limitations of parent claim 8 as disclosed in the rejection under 35 U.S.C. 103(a) above. However, the above combination Cline and Billhardt does not disclose the limitations of claim 9 that the step of determining is performed in an event of overflow traffic.

However, "EWSD Remote Switching Unit" discloses the limitation that the step of determining is performed in an event of overflow traffic in the section labeled "External connection via backdoor trunks" on page 11. This section teaches the rerouting of connections if a trunk is busy (i.e. a traffic overflow). Cline and "EWSD Remote Switching Unit" are analogous art as they are both from the same field of endeavor of communications switching systems. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Cline to route the data via the alternate links (as in Figure 5) based on overflow traffic conditions as suggested by "EWSD Remote Switching Unit". The motivation for doing so would have been to reduce load on the network and cut costs as suggested by "EWSD Remote Switching Unit" in the first paragraph in column 2 of page 6. Therefore, it would have been obvious to combine "EWSD Remote Switching Unit" with Cline and Billhardt for the benefit of reducing load on the network and cutting costs to obtain the invention as specified in claim 9.

12. Claim **20** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,972,465 to Cline et al in view of "EWSD Remote Switching Unit – The Intelligent Solution for a Smart Remote" and in further view of "A Survey of the Remote Switching Capabilities of the 5ESS Switch" to Billhardt et al.

Cline and "EWSD Remote Switching Unit" discloses the limitations of parent claim 7 in the rejection under 35 U.S.C. 103(a) above. However, Cline, as modified above, does not disclose expressly the limitation that the subscriber access units are also used for connecting transmission lines to or from other exchanges. Billhardt discloses the limitation that the subscriber access units are also used for connecting transmission lines to or from other exchanges in Figure 6. Cline and Billhardt are analogous art because they are from the same field of endeavor of communications switching systems. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Cline to explicitly indicate that the switching modules connected to other exchanges. The motivation for doing so would have been to further reduce subscriber isolation as suggested throughout Cline; see the abstract, for example. By allowing the subscriber to communicate with other exchanges when a catastrophe occurs in the central office, the subscriber is less isolated by the catastrophe, thus improving on Cline. Therefore, it would have been obvious to combine Billhardt with Cline for the benefit of further reducing subscriber isolation in event of a catastrophe to obtain the invention as specified in claim 20.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent 6,850,517 to Kakiuchi discloses a system for high-capacity electronic switching.

- U.S. Patent 5,533,114 to Ballard et al discloses a system of subscriber connection units that have independent routing ability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 7:00-5:30 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RCS 3-8-07
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